

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An electric lamp, comprising:
  - a) a lamp envelope having an inner surface;
  - b) means within the lamp envelope for generating ultraviolet radiation;
  - c) a layer of a luminescent material adjacent the inner surface of the lamp envelope for generating visible light when impinged by said ultraviolet radiation; and
  - d) a base-coat layer, between said inner surface of said lamp envelope and said layer of luminescent material, for reflecting ultraviolet radiation which has passed through said layer of luminescent material back into said luminescent material for increasing the visible light output of said luminescent material, said base-coat layer comprising a particulate non-fluorescent

oxidic material with a getter material on its surface which reacts with contaminants present in the lamp, said getter material comprising an alkaline earth metal ~~borate or mixtures thereof~~ pyroborate.

2. (Previously Presented) The lamp according to claim 1, wherein said getter material is formed upon thermal decomposition of a getter precursor material during lehring.

3. (Previously Presented) The lamp according to claim 1, wherein said base-coat layer comprises a particulate aluminum oxide having a contiguous layer of a borate of an alkaline earth metal or mixtures thereof formed by exposing the particulate aluminum oxide during the lehring process to an effective amount of a precursor material of an alkaline earth metal borate getter compound.

4. (Previously Presented) The lamp as claimed in claim 3, wherein said base-coat layer is sintered just prior to the envelope being sealed during manufacture of said lamp.

5. (Previously Presented) The lamp as claimed in claim 3, wherein said getter material includes a borate of an alkaline earth metal selected from the group consisting of magnesium, calcium, strontium, barium, and mixtures thereof.

6. (Previously Presented) The lamp as claimed in claim 5, wherein said sintered mixture is derived from a soluble precursor compound of an alkaline earth metal borate or mixtures thereof in an aqueous suspension of aluminum oxide.

7. (Currently Amended) ~~The lamp as claimed in claim 3,~~ An electric lamp, comprising:

- a) a lamp envelope having an inner surface;
- b) means within the lamp envelope for generating ultraviolet radiation;
- c) a layer of a luminescent material adjacent the inner surface of the lamp envelope for generating visible light when impinged by said ultraviolet radiation; and
- d) a base-coat layer, between said inner surface of said lamp envelope and said layer of luminescent material, for reflecting

ultraviolet radiation which has passed through said layer of  
luminescent material back into said luminescent material for  
increasing the visible light output of said luminescent material,  
said base-coat layer comprising a particulate non-fluorescent  
oxidic material with a getter material on its surface which reacts  
with contaminants present in the lamp, said getter material  
comprising an alkaline earth metal borate or mixtures thereof,  
wherein said base-coat layer comprises a particulate aluminum oxide  
having a contiguous layer of the alkaline earth metal borate or  
mixtures thereof formed by exposing the particulate aluminum oxide  
during the lehring process to an effective amount of a precursor  
material of an alkaline earth metal borate getter compound, and  
wherein said getter material is comprises an alkaline earth metal  
pyroborate.

8. (Previously Presented) The lamp as claimed in claim 7,  
wherein said layer of luminescent material comprises a  
halophosphate phosphor.

9. (Previously Presented) The lamp according to claim 1,

wherein said means for generating ultraviolet radiation is disposed within said lamp envelope, said lamp envelope including a filling of an ionizable material and a rare gas and a pair of discharge electrodes between which a discharge takes place during lamp operation.

10. (Previously Presented) The lamp according to claim 1, wherein said means for generating ultraviolet radiation comprises a filling of an ionizable material and a rare gas within said lamp envelope and a pair of discharge electrodes each adjacent to a respective sealed end of said discharge vessel.

11. (Currently Amended) A low pressure mercury vapor fluorescent lamp, comprising:

- a) a tubular, light transmissive lamp envelope having opposing sealed ends and an inner tubular surface;
- b) a filling of mercury and a rare gas;
- c) a pair of discharge electrodes each arranged at a respective sealed end of said lamp envelope;
- d) means for connecting said discharge electrodes to a source

of electric potential outside of said lamp envelope, whereby during lamp operation a gas discharge is maintained between said discharge electrodes, wherein said gas discharge emits ultraviolet radiation;

e) a first layer disposed on said inner tubular surface of said lamp envelope, wherein said first layer is a light transmissive and ultraviolet radiation reflecting layer, said first layer comprising a sintered mixture of an aluminum oxide material and a getter material which reacts with contaminants present in the lamp, said getter material comprising an alkaline earth metal ~~borate or mixtures thereof~~ pyroborate; and

f) a second layer of luminescent material disposed on said first layer.

12. (Previously Presented) The lamp as claimed in claim 11, wherein said first layer comprises a particulate aluminum oxide having a contiguous layer of an alkaline earth metal borate or mixtures thereof formed by exposing the particulate aluminum oxide material during the lehring process to an effective amount of an alkaline earth metal borate precursor compound.

13. (Previously Presented) The lamp as claimed in claim 11, wherein said first layer is sintered just prior to the envelope being sealed during manufacture of said lamp.

14. (Previously Presented) The lamp as claimed in claim 13, wherein said alkaline earth metal is selected from the group consisting of magnesium, calcium, strontium, barium, and mixtures thereof.

15. (Currently Amended) The lamp as claimed in claim 14, wherein said sintered mixture is derived from a soluble borate precursor material of an said alkaline earth metal or mixture thereof in an aqueous suspension of aluminum oxide.

16. (Currently Amended) An electric lamp, comprising:

- a) a lamp envelope having an inner surface;
- b) means within the lamp envelope for generating ultraviolet radiation;
- c) a layer of a luminescent material adjacent the inner surface of the lamp envelope for generating visible light when

impinged by said ultraviolet radiation; and

d) a base-coat layer, between said inner surface of said lamp envelope and said layer of luminescent material, for reflecting ultraviolet radiation which has passed through said layer of luminescent material back into said luminescent material for increasing the visible light output of said luminescent material, said base-coat layer comprising a particulate non-fluorescent oxidic material with a getter material on its surface, said getter material comprising an alkaline earth metal ~~borate or mixtures thereof~~ pyroborate effective to react with contaminants present in the lamp to the extent that arc instability after ignition of the lamp is substantially eliminated.

17. (Currently Amended) The electric lamp as claimed in claim 16, wherein said base-coat ~~comprises~~ is formed from material comprising about 0.5 to about 1.0 grams of aluminum oxide containing an amount of calcium nitrate and boric acid calculated to produce as said getter material about 1 to about 3% calcium pyroborate based on the weight of the aluminum oxide.